



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,779	09/30/2005	Peter Berenbrink	2002P14078WOUS	8492
7590 03/05/2009				
Siemens Corporation Intellectual Property Department 170 Wood Avenue South Iselin, NJ 08830				
EXAMINER				
PRICE, CARL D				
ART UNIT		PAPER NUMBER		
3749				
MAIL DATE		DELIVERY MODE		
03/05/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/525,779

**Applicant(s)**

BERENBRINK ET AL.

**Examiner**

Carl D. Price

**Art Unit**

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01/26/2009 (RCE).  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 20-32 and 36-39 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 20-32 and 36-39 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SF-08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on **12/11/2008** has been entered.

### Response to Arguments

Applicant's arguments with respect to claims **20-32** and **36-39** have been considered but are moot in view of the new ground(s) of rejection.

Applicant has amended the claims to be of a scope not previously considered. Applicant's remarks filed on **12/11/2008** include at least the following:

“Response to Rejections Under Section 112:

Applicant has amended claims 20, 21, and 22 to reflect the comments presented by Examiner. Applicant appreciates the clarity of the explanation and believes that the amendments properly address each of the issues, thus placing claims 20-32 in condition for allowance. Applicant has amended claim 36 and has avoided the indefinite language discussed above. Applicant respectfully requests the 35 USC 112 rejections of claims 20-32, and 36-39 be withdrawn.”

Response to Rejections Under Section 102:

Claim 36 has been amended to include the limitations of claim 33, and further amended as follows “the burner has a channel embodied annularly around the burner longitudinal axis in which a medium flows” The chamber taught in Irish is not embodied annularly around a burner longitudinal axis, and thus Irish does not teach this aspect of Applicant's claim 36.”

Upon review of **claims 20-32** and **36-39**, it has been determined that these claims are indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As such **claims 20-32** and **36-39** are rejected under 35 U.S.C. 112, second paragraph.

See the examiner's action herein below.

**Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20-32 and 36-39 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claims 20 and 37 are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. More specifically, claim 20 lacks structure which might bring about permit the function or operation set forth in the recitation "wherein the concentration distribution of the fuel along a length of a first axis perpendicular to the flow direction is not constant in order to avoid combustion instabilities during operation of the burner." Is applicant attempting, to claim that the -- the means for creating a mixture includes fuel discharge openings arranged to create a concentration distribution of fuel within the flow of compressed air and/or oxygen not constant across a distance defined along a length of a first axis which is oriented perpendicular to the flow direction in order to avoid combustion instabilities during operation of the burner. --. Similarly, claim 36 lacks structure which might bring about permit the function or operation set forth in the recitation(s) the "outflow angle". It is unclear what, if any, relationship the "an outflow angle" has with the previously recited "means for imparting a swirl". It is unclear what relationship the "means for providing a flow of compressed air..." and the "means for imparting a swirl" necessarily have with the elements recited in lines 5-9.

In claim 20, line 5, there is no proper antecedent basis for "the concentration distribution".

In claim 20, line 9, there is no proper antecedent basis for "the length".

In claim 22, the term "an exterior" is a relative term which renders the claim indefinite. The term "an exterior" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably

apprised of the scope of the invention. Is the applicant attempting to claim - - and exterior portion of the burner located a distance away from the interior area... - - ? See also claim 37 for similar informalities.

Claim 23 is vague and indefinite since it is unclear if the recitation(s) "can be" are to be understood as a conditional arrangement of the recited structure, or if the recitation "can be" is to be understood as a definite arrangement. That is, as in, - -the fuel is supplied in a channel - - .

In claim 24, line 2-3, there is no proper antecedent basis for "the burner longitudinal axis".

Claims 26-28 and 36 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: Structure which would necessarily define and/or distinguish the burner to be of a "gas turbine" type, "diffusion" type, or "pilot" type. In regard to claim 28, in particular, since the claim (see independent claim 20) specifically recites "means for creating a mixture ..." it is unclear what, if any, structure beyond that which is already claimed would distinguish the burner as a "premix" type. In claim 36, there is no recitation, such as a fuel flow, which would necessarily bring about combustion instabilities which the invention is directed at avoiding.

Claim 29 is vague and indefinite, since it is unclear what, if any, relationship the "swirl blade" necessarily has with the previously recited "means for imparting a swirl". Is applicant attempting to claim that the "means for imparting a swirl" includes a "swirl blade"?

In claim 36, lines 8, there is no proper antecedent basis for "its flow".

#### **Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

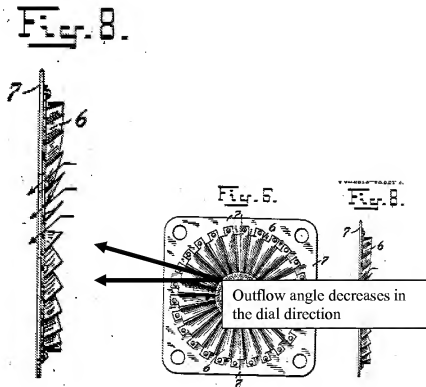
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 33-39 are rejected under 35 U.S.C. 102(b) as being anticipated by US 1086715 (Irish).

US 1086715 (Irish) shows (figure 8) and discloses a burner, comprising:

- a means for providing a flow of compressed air (13) defining a flow medium in a flow direction;
- a bladed disk means for imparting a swirl 6; spiral vanes) of the mixture about the flow direction, wherein an outflow angle of the swirled mixture varies in magnitude in a single direction across the axis perpendicular to the flow direction.



Allowable Subject Matter

Claim 20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 21-32 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

**Conclusion**

**USPTO CUSTOMER CONTACT INFORMATION**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl D. Price whose telephone number is (571) 272-4880. The examiner can normally be reached on Monday through Friday between 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven B. McAllister can be reached on (571) 272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Carl D. Price/

Primary Examiner, Art Unit 3749